telecommunication journal

Published by the International Telecommunication Union (ITU) GENEVA

YEAR 1969

CHRONOLOGICAL TABLE
ANALYTICAL TABLE

JUL 23 1070
CHICAGO CIRCLE

U. of ILL. LIBRARY
JUL 2.3 1920
CHICAGO CIRCLE

CHRONOLOGICAL TABLE

Nº I - JANUARY

Nº III - MARCH

	age		Pag
Editorial	2	Editorial	10
	3	Union Activities	
Inion Activities	,	Conferences or meetings external to the ITU	
The Story of ITU Technical Co-operation (6)	12	The Journal seventy-five years ago	
Telecommunication training in Iraq		Ideas and Achievements	
Conferences or meetings external to the ITU	15	European HEOS-A satellite	
deas and Achievements		• Intelsat-III	
Nigerian microwave and VHF network	19	• Icarus measurements by radar	11
Survey of medium wave propagation in tropical Asia	20	Technical training school at Dieburg	11
New marine radar will outlaw sea collisions	21	Some aspects of international co-operation in space telecommunications	
Essential characteristics of the metal sheaths of trunk cables for protection against		• I. PETROV	11
external electromagnetic fields		Colour videophone	- 11
M. I. MIKHAILOV and L. D. RAZUMOV	23	• G. VALENSI	
		Software versus hardware • R. A. CLINE	12
Simplified method for calculating the supplementary attenuation due to auroral absorp- tion for distances less than 4000 km		ITU Conferences - XX	
P. BRONZINI	29	25 International Consultative Committee for Long-Distance Telephone Com-	
		munications (CCI) — 6th Plenary Assembly — Berlin, 3-10 June 1929	. 1.
There is always a substitute for spectrum	33	Basic indices for ionospheric propagation	, 1.
• H. J. LEVIN	33	ITU Cinema Library	. 1.
The Journal seventy-five years ago	36	News	. 1
		New Products	1
Basic indices for ionospheric propagation	37	Review review	- 1
News	38	Books	. 1
	45	Telephilately	
Review review	43	Official Announcements	-
Official Announcements	46	ITU Publications	
	47	List of satellite launchings in 1968 (insert)	
ITU Publications	4	Chronological Table and Analytical Table for 1968 (insert)	

No. II - FEBRUARY

Page Ideas and Achievements · OAO . Large cylindrical radio-telescope at Ootacamund Pioneer-D Western Union International — Pioneers in computerized telex operation The European broadcaster's attitude toward satellite technology O. RYDBECK and E. W. PLOMAN The Dioscures project — system of telecommunications, air traffic control and navigation by satellites ITU Conferences — XIX

Nº IV - APRIL

Editorial		
Union Activities Lideas and Achievements Solar observatory OSO-V International satellite for ionospheric studies — ISIS-I Interpolated satellite multiple access experiment Isis A PCM-FDMA demand assigned satellite multiple access experiment Interpolated satellite mu		Pag
Union Activities Ideas and Achievements Solar observatory OSO-V International satellite for ionospheric studies — ISIS-1 Large colour television pictures produced by laser system A PCM-FDMA demand assigned satellite multiple access experiment J. G. PUENTE The "fonotelex" service P. F. ERIKSEN Simplified method for calculating auroral absorption for distances of over 4000 km V. VLADIMIROV ITU Conferences - XXI Sol International Consultative Committee for Telegraph Communications (CCIT)—Second meeting — Berlin, 10-17 June 1929 The Journal seventy-five years ago ITU Cinema Library Basic indices for ionospheric propagation News New Products Review Review Books Tenders (see also insert) Official Announcements	Editorial	14
Solar observatory OSO-V International satellite for ionospheric studies — ISIS-I Large colour television pictures produced by laser system A PCM-FDMA demand assigned satellite multiple access experiment J. G. PUENTE The "fonotelex" service P. F. ERIKSEN Simplified method for calculating auroral absorption for distances of over 4000 km V. VLADIMIROV ITU Conferences - XXI 26. International Consultative Committee for Telegraph Communications (CCIT)—Second meeting — Berlin, 10-17 June 1929 The Journal seventy-five years ago ITU Cinema Library Basic indices for ionospheric propagation News New Products Review Review Books Tenders (see also insert) Official Announcements		15.
J. G. PUENTE The "fonotelex" service P. F. ERIKSEN Simplified method for calculating auroral absorption for distances of over 4000 km V. VLADIMIROV ITU Conferences - XXI 26. International Consultative Committee for Telegraph Communications (CCIT)—Second meeting — Berlin, 10-17 June 1929 The Journal seventy-five years ago ITU Cinema Library Basic indices for ionospheric propagation News New Products Review Review Books Tenders (see also insert) Official Announcements	Solar observatory OSO-V International satellite for ionospheric studies — ISIS-I Large colour television pictures produced by laser system	15
J. G. PUENTE The "fonotelex" service P. F. ERIKSEN Simplified method for calculating auroral absorption for distances of over 4000 km V. VLADIMIROV ITU Conferences - XXI 26. International Consultative Committee for Telegraph Communications (CCIT)—Second meeting — Berlin, 10-17 June 1929 The Journal seventy-five years ago ITU Cinema Library Basic indices for ionospheric propagation News New Products Review Review Books International Consultative Committee for Telegraph Communications (CCIT)—Second meeting — Berlin, 10-17 June 1929 If the Journal seventy-five years ago ITU Cinema Library Basic indices for ionospheric propagation News International Consultative Committee for Telegraph Communications (CCIT)—Second meeting — Berlin, 10-17 June 1929 ITU Cinema Library IT	A PCM-FDMA demand assigned satellite multiple access experiment	14
● P. F. ERIKSEN Simplified method for calculating auroral absorption for distances of over 4000 km ● V. VLADIMIROV ITU Conferences - XXI ● 26. International Consultative Committee for Telegraph Communications (CCIT)—Second meeting — Berlin, 10-17 June 1929 The Journal seventy-five years ago ITU Cinema Library Basic indices for ionospheric propagation News New Products Review Review Books Tenders (see also insert) Official Announcements	• J. G. PUENTE	13
V. VLADIMIROV ITU Conferences - XXI		17
26. International Consultative Committee for Telegraph Communications (CCII)—Second meeting — Berlin, 10-17 June 1929 The Journal seventy-five years ago ITU Cinema Library Basic indices for ionospheric propagation News New Products Review Review Books Tenders (see also insert) Official Announcements	Simplified method for calculating auroral absorption for distances of over 4000 km V. VLADIMIROV	17
The Journal seventy-five years ago ITU Cinema Library Basic indices for ionospheric propagation News	26. International Consultative Committee for Telegraph Communications (CCTT) Second meeting — Berlin, 10-17 June 1929	
ITU Cinema Library Basic indices for ionospheric propagation News	The Journal seventy-five years ago	
Basic indices for ionospheric propagation News	ITU Cinema Library	
News 1 New Products 1 Review Review 1 Books 1 Tenders (see also insert) 1 Official Announcements 1	Basic indices for ionospheric propagation	
New Products	News	
Review Review	New Products	-1
Books	Review Review	1
Tenders (see also insert)		
Official Announcements		
11U Publications		
	TIU Publications	

No. V - MAY

	Page
Editorial	200
Union Activities The Story of ITU Technical Co-operation (7)	201
Training of technical staff for PT&T Ministry in Kuwait	205
Conferences or meetings external to the ITU	209
Ideas and Achievements • Optical communications experiments at 6328 Å and 10.6 μ	210
Mariner mission to Mars	216
New radio telescope in the United Kingdom	220
The Journal seventy-five years ago	222
The Doppier effect in radio astronomy • A. J. HIGGS	223
The effect of income and social class on residential telephone demand • B. WELLENIUS	227
Evolution of the international routing plan I. A. NEWSTEAD	231
ITU CONFERENCES - XXII 27. International Technical Consultative Committee on Radiocommunications (CCIR)—First meeting—The Hague, 18 September-2 October 1929	235
Basic indices for ionospheric propagation	236
ITU Cinema Library	237
News	238
New Products	244
Review Review	245
Books	247
Official Announcements	249
ITI1's world-wide Technical Co-energtion (insert)	

No. VI - JUNE

	Page
Editorial	252
Union Activities	255
Conferences or meeting external to the ITU	260
Ideas and Achievements Meteorological satellite Nimbus-III	. 265
Computer simulation of semi-conductor devices	267
Considerations on the types and essential features of telecommunication technique	
training establishments set up with Special Fund assistance (part two) • W. J. FIJALKOWSKI	268
The acquisition and use of ionospheric data for prediction and other practical appli-	
entions W. R. PIGGOTT	273
Multichannel transmission by tropospheric scatter R. FREEMAN	280
The Journal seventy-five years ago	286
ITU Conferences - XXIII	
28. International Consultative Committee on Long-Distance Telephone Communications (CCI) - 7th Plenary Assembly - Brussels, 16-23 June 1930	287
Basic indices for ionospheric propagation	288
ITU Cinema Library	289
	5 290
News	
New Products	294
Review Review	296
Telephilately	298
Official Announcements	300
ITI Publications	301

No. VII - JULY

	Page
Editorial	304
Union Activities	305
Conferences or meetings external to the ITU	310
Ideas and Achievements	
• Fifty years of co-operation between the Nordic countries in the field of telecommunication (1917-1967)	313
• Improved television reception: antenna measurements by helicopter	314
• The Tunisian telecommunication programme for 1969	314
The Journal seventy-five years ago	316
Economic factors influencing the break-even relations between satellite and terrestrial point-to-point communication	
• S. G. LUTZ	317
The development of fully filled cables for the telephone distribution network	
• N. S. DEAN	329
Reflections on the plan for development of telecommunication networks in Latin America on the eve of the fourth Latin America Plan meeting	
• M. MALEK-ASGHAR	337
ITU Cinema Library	341
Basic indices for ionospheric propagation	342
News	343
New Products	349
Review Review	350
Official Announcements	351
ITU Publications	353
Eighth report by the ITU on telecommunications and the peaceful uses of outer space $(insert)$	

No. VIII - AUGUST

Union Activities	356 359 366
Union Activities	359
Union Activities	
Conferences or meetings external to the ITU	
Conferences or meetings external to the ITU	366
Mary and Addisonated	
Ideas and Achievements	
Computer aided design of microcircuits	367
Commercial television aids NBS standard broadcasts	368
Apollo-11 communications	
• NASA	369
Underwater communications	
• J. R. DEAN	374
Safety and radiotelephone communications on the Great Lakes	
• J. W. MANNING	379
The Journal seventy-five years ago	384
ITU Cinema Library	38:
Basic indices for ionospheric propagation	38
News	387
New Products	390
Review Review	39
Books	394
Official Announcements	39
ITU Publications	39

No. IX - SEPTEMBER

Page 402 A report by the ITU Ideas and Achievements 424 425 Mobile communications via satellite International accounting in the international automatic telephone service Present and future airline telecommunications requirements 448 449

 Books
 457

 Official Announcements
 457

 ITU Publications
 459

No. X - OCTOBER

	Page
Editorial	. 462
Union activities	. 467
Conferences or meetings external to the ITU	. 470
Ideas and achievements	
Error in electrostatic actuator calibration of condenser microphones	. 471
• Simple prism may be the key to miniature laser circuits	. 473
• Africa " live "	. 474
A new concept in domestic satellite communications	
R.P. GIFFORD	. 475
The land mobile services in the Federal Republic of Germany	
• K.R. BINZ and G.J. STRUNZ	. 480
Electronic automatic switching equipment with recorded programme control — t	ne .
Périclès project L.J. LIBOIS and P. LUCAS	. 490
ITU Cinema Library	
	. 501
	, 501
Basic indices for ionospheric propagation	. 501
Basic indices for ionospheric propagation	. 501
Basic indices for ionospheric propagation	. 501 . 502 . 509
Basic indices for ionospheric propagation	. 501 . 502 . 509 . 511
New Products	. 501 . 502 . 509 . 511 . 512 . 513

No. XI - NOVEMBER

	Page
Reprint of the first issue of the "Journal télégraphique"	
Editorial	. 518
Union activities	. 519
Conferences or meetings external to the ITU	. 528
Ideas and achievements	
• Magnetic « bubbles » may provide compact and inexpensive data processing for	or
computers, switching systems	
• The Bahrain earth station	. 531
Antenna system Raisting II	. 532
Telecommunications in Brasil J. M. NOGUEIRA RAMOS	. 534
From the « Journal télégraphique » to the « Telecommunication Journal », or one hundr years in the service of telecommunications	ed
• Mrs. G. PÉROTIN	. 537
The radio refractive index of the atmosphere in Indonesia B. SUTANTO	. 542
ITU Cinema Library	. 547
Basic indices for ionospheric propagation	. 548
News	. 549
New Products	. 556
Books	. 557
Review Review	. 558
Telephilately	. 560
Tenders	. 561
Official announcements	. 562
ITU Publications	. 563

No. XII - DECEMBER

																										Pag
ditorial												ì					i									56
nion Activities			,																							56
onferences or meetings	extern	nal t	o t	he	n	ru													ı,							57
Computers in telecomm	nunica	tions	"	(81	un	nn	at	у	of	th	ie	ar	tic	les	r	eci	eiv	ed	fi	or	n .	ad	mi	ni	s-	57
rations and companies)			٠									*	•	٠	*											
he Journal one hundred	lyears	ago	•				÷							٠			٠	٠		٠				•	•	-71
TU Cinema Library .																										7
lasic indices for ionosph	eric p	ropa	gai	tio	n													ř								7:
lews	j					٠				i.																7
lew Products																										7:
looks																										7
Review Review			į.	į.	i																				÷	7.
Cenders (Kingdom of M																										7
Official Announcements																										7:
TU Publications																										7
Recapitulatory table of nunications "																										

No. XII - DECEMBER "Computers in telecommunications"

Summary		pag
ARGENTINA	Optimum location of special service concentrators L. M. GAROSELLI and R. E. SAMBADE	57
AUSTRALIA	I. Australian Post Office — Computer use in telecommunications	59: 59:
CANADA	I. Use of computers by the Canadian Government Radio Regulations Broadcast Engineering Section II. Other applications	60
CUBA	Computers and telecommunications in developing countries J. HERNÁNDEZ HERNÁNDEZ	60:
DENMARK	I. Telephone directories and electronics O. NIELSEN	60
	II. Management and control of telephone exchange equipment by computer	61.
UNITED STATES	I. Telecommunications and electronic data processing	62
	II. Computer telex exchange	62:
	III. The "Apollo" communications network R. D. COOP and R. J. MALNATI	62:
FRANCE	I. Use of computers in the French telecommunication services	63:
	II. Automation of the "MOTNE" telegraph network — The "CLIMAT" system	64:
	III. Simulation of data transmission systems by means of a computer	65.
ITALY	Recording and processing of telephone traffic set up by direct dialling	65
JAPAN	I. Use of computers in telecommunications II. NHK-" TOPICS" G. J. LISSANDRELLO and N. MII	66
NETHERLANDS	I.1 "ARGUS", a stored-programme-controlled system for integrated remote supervision and operation of telecommunication equipment D. van de NIEUWEGIESSEN	67
	I.2 Processor controlled automatic transmission measuring and signal testing equipment for international and intercontinental telephone circuits J. de GRANJE	67
	L3 Processor operated "FLEX-ARQ" functions	67
	II. Automation of telephone billing and bill collecting J. M. van OORSCHOT	68:
PHILIPPINES	Applications of computers in telecommunications in the Republic of the Philippines	68
F. R. OF GERMANY	Data processing as an instrument of management in automatic telecommunication networks R. MEISEL	68
UNITED KINGDOM	Computers in the British Post Office	69
SWEDEN	I. Introduction of computer-controlled exchanges in the Swedish telecommunications network B. FORSS	69
	II. The use of computers for administrative work in telecommunications administrations H. NILSSON	69
SWITZERLAND	L. "ATECO" — Automatic transmission of telegrams by computer F. KELLER	70
	II. Telephone rationalization by computer	70
TUNISIA	Present and future utilization of computers for telecommunications at the Secretariat of State for Posts, Telegraphs and Telephones, Tunis	70
USSR	Automated management information systems — design problems	71